THE MARINE RECORD.

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AROUND THE LAKES.

CLEVELAND.

Cautionary signals will be resumed on the lakes April 15.

Captain Hugh Hastings of Milan, O., and master of the Fairbanks, was in the city last week.

The tug Aaron Wilcox of Port Clinton, O., has received a new boiler made by a Buffalo firm.

Maurice B. Sturtevant last season assistant engineer on the S. Chamberlain goes as chief of the same boat.

Mr. James Lord last season chief engineer on the steamer Harry E. Packer goes in the same capacity on the steamer Henry Chisholm.

Jerry Black who was three years ago chief engineer of tug Samson goes assistant on the R. R. Ranney with J. M. Green as chief engineer, Mr. Green was last season chief of S. Chamberlain.

At the Globe Drydock the steamer Sparta is having her bottom calked and is getting a new fore foot. The schooner James Couch will go into the dock next and have her bottom recalked.

Thos. J. W. Quirk of this city, a well known marine engineer, has retired from the lakes and accepted the inspectorship at this place, of the New York Boiler Insurance Co. of New York. He was last season chief engineer of the R. P. Ranney and two years ago chief engineer of the viaduct.

A young man arrived at Geneva, Ohio, on Monday, the 22nd ult. and reported having crossed Lake Erie from Canada on the ice. According to his story he was sixteen hours in making the trip. For a distance of five miles from each shore the ice was rough, but in the middle it was as smooth as glass.

Cahoon & Hutchinson have purchased the Oswego schooner Senator Blood of Captain Preston, terms private, they intend to convert her into a lumber barge for their own business. As she classes A2½ she will make a good servicable barge for sometime to come. Captain Glass, of the Transport, will sail her. No master has been appointed for the Transport yet.

Chaplain J. D. Jones' quarterly report of the Floating Bethel mission work shows that 2,172 attended the meetings, 645 arose for prayers, 162 families were visited in which there was sickness; to 58 families coal was given, 56 provisions, 24 clothing and for 10 rent was paid; 13 visits were made to the city hospital and reading matter was given each patient. Over 600 free meals were given to the hungry at the Floating Bethel and the attendance at the meetings was larger than during any quarter since the mission was started.

Contracts have been made by the Diamond Match Co., at this port for the transportation of 35,000,000 feet of lumber the present season, which will take out of the ore and grain trade quite an amount of tonnage, including the steambarge H. B. Tuttle, 845 tons, with her tow Kingfisher, 291 tons; Frank Perew, 552 tons; and the tug Thomas Quayle, with the tow Zack Chandler, 227 tons the Commodore, 586 tons, and the Peck 361 tons, the last two being rated for coarse freight only. It is also reported that a tow of Buffalo boats will share this contract, although that has not yet been definitly settled.

The all steel steamship under consideration by the Anchor Line, the Erie & Weston Transportation Co., E. T. Evans, manager, is to be 320 feet over all, 25 feet deep and 49 feet beam. The Detroit Drydock Co., the Globe Shipbuilding Co., and the Union Drydock Co. are preparing plans. In case either of them are adopted bids will be made by those firms. The machinery will be one 36 inch high pressure engine and two 51 inch low pressure by 48 inch stroke, turning a 14 foot wheel, and the average speed is to be 12 miles per hour. The boilers are to be 14½ feet in diameter and 14 feet long. The new steamship will be built with a view to carry 3,000 tons or 100,000 bushels of wheat and will take rank with the Onoko as a large carrier.

Captain George McKay, manager of the Cleveland Transportation Line, has made the following appointments to the boats: Sparta, Captain William Cummings; Havana, Captain Hugh MacEachran; Vienna, Captain James Condon; Sumatra, Captain William Russell; Helena, Captain Thomas B. Armstrong; Verona Captain J. Goodsell; Genoa Captain James Nicholson; Oscar Townsend, Captain William Humphrey; Ed Kelley, Captain William Morse; Leonard Hanna, Captain P. Dowdell.

A suit for $20,000 damages has been brought in the common pleas court by Captain P. H. Finley, master of the schooner Jane Bell, wrecked in 1880 near Ashtabula, Ohio, against W. B. Guyles. The suit is based on the alleged fact that Mr. Guyles, who was connected with an insurance company, charged Captain Finley with having put the schooner ashore purposely. The Jane Bell was owned by the Crowl estate.

ALGONAC.

Special to the Marine Record.

The tug Dave and Mose has been fixed up and is ready to go along to Detroit to her new owner, A. H. Mills, as soon as St. Clair lake opens.

The tug George Hand, Captain Calvin Currie, is fitting out, and will go to Sand Beach in accordance with government orders by May 1st, if navigation opens.

A fine new barge is being built here, upon what remained of the old propeller Plymouth after she was pulled out and cut down. Ed. Debeau, the ship-builder, is doing the work and Captain J. P. Harrow is superintending the work on behalf of himself and William Baker and Captain J. B. Lozen, her owners. She will be 221 feet over all, 35 feet 2 inches beam and 14 feet 4 inches depth of hold. She has new keel and garboard, main keelson 30x86, first strake fore and aft keelsons 14x14, second strake of keelsons 14x12, third strake of keelsons 12x10. One-third of her, aft, has all new frames, all new cants forward, all new extra futtocks 11 feet long between the frames, ceiling 6 inches thick up to the deck, from the plank sheer up to the rail inside, 4 inches thick, edge bolted, deck beams 8x8, about 14 inches apart, hatch and partner beams 8x16, stanchions under hatch and partner beams, 10 inches square, of oak, the other stanchions 10x6, stringers under the beams, 10x8, new decks, new cabin aft and forecastle. Cabin both on deck and her forecastle deck will extend 30 feet back from the deck, her outside plank from light water mark up to the rail, 4 inches thick, rail, 6 inches thick 17 inches wide. She will be launched next month.

A Hemenger has put such a good looking new bow and cut-water on the scow Hannah Moore, owned by J. C. Dowswell, of this port, that she will hardly be recognized as a scow, and will probably when loaded be taken for some new schooner.

Captain Geo. Stomler is giving the tug Lark a rebuild, comprising new frames and ceiling, new planking where needed, new stanchions and rail, bulwarks and wale strake and a new pilot house, and her engine and boiler overhauled and put in good order. The captain will take her to Au Sable to do towing the coming season in conjunction with the tug Laura Gibbs.

Captain A. Hemenger's steam barge Fern of this port, now on the beach at Crawford's Quarry, Lake Huron, will be got off, and after receiving necessary repairs will be used between Alpena and the Straits for wrecking purposes, comprising diving and assisting in lightenirg, etc. W. T.

DULUTH.

Wilson Palmer, second engineer on the City of Winnipeg at the time she burned left last night for Toronto, Ont., to attend a trial now pending there. A shipper who sent goods by the boat on her last trip thinks the boat was set on fire purposely and has sued the company for damages.

DETROIT.

Special to the Marine Record.

Some of the business affairs along the docks are being recuperated and polished up for the season's business, and notably so that of A. N. Moffatt, at the foot of Shelby street, which is being prepared in the most artistic style.

J. B. Baker, steamboat manager, has opened an office in what is known as the Hutchings building, further eastward.

John Farlane, who last season was wheelsman on the steam barge, B. W. Jenness, and a resident of Detroit, strayed from these parts in the early part of the winter to the southward, and a few days since was reported killed at Laketon, Ky., on the Mobile & Ohio railroad. The ill-fated sailor traveled a long distance from his Detroit home to meet so sad an end.

Captain Thomas M. Hubbell, of this city, has the contract for dredging and improving the Belle river, Hay Lake channel and the middle Neebish.

The Sault canal is being prepared for business resumption, and will be in readiness long before its use will be required.

A gentleman who is an old expert in shipbuilding, and has visited all the shipbuilding points on the Clyde, in Scotland, and other prominent points in the old country as well as in the Eastern States and on the lakes, visited Cleveland a few days since and there saw the new iron steamer in dock. He minutely examined her construction and pronounces her the finest iron steamer he has ever yet seen. The compliment, I can assure you, emanating from so high a source, was by no means a mean one.

A few late appointments are as follows: Steam barge Iron Chief, Captain P. E. Millen; schooner barge Iron Cliff, Captain Wm. Millen; schooner barge Iron State, Captain Norman Miner; steam barge Iron Duke, Captain Thomas Horner; steam barge Iron Age, Captain G. A. Miner; tug Niagara, Captain John Donor.

Captain Grummond's wrecking tugs will be run as last year. Captain Martin Swain goes in the Winslow, Captain Ed. Tormey in the Martin Swain, and Captain John Miller in the Champion. The tugs of this line are all ready for business, aside from painting, which is being carried out at the present time. The Swain is having her engine compounded.

A. Cheesebrough's vessels have the same appointments as last year: Captain C. L. Wilson, propeller Pacific; Captain D. Girardin, tug Wilcox; Captain Henry Berlin, schooner Canton.

The propeller Passaic was in the Detroit Drydock on Monday to receive a new wheel. The steam barge Ada Allen and the City of Dresden are also being docked for general repairs to-day (Tuesday.

The new steam barge, building for Hiram Walker, Esq., of this city, at Wallaceburgh, Ont., will be ready for commission early in June. Dimensions as follows: Length, 120 feet, beam, 26 feet 3 inches with proportionate depth, and 225 tons register.

Captain Barney Wilde has sold the propeller Maine to G. C. Geel, of Marysville, river St. Clair, and Captain John Minor, of this city, for $18,000.

Mr. Whipple, owner of the steamer Island Belle, which he purchased last fall at Clayton, N. Y., has concluded to put her on the route this season between Detroit and Gibraltar, calling at way landings, commencing in May. It is stated she will carry 420 passengers, make sixteen miles per hour, and is as stiff as a church.

Navigation, so far as this immediate locality is concerned, has been resumed. The steamer Riverside, which plies between this city and Amherstburg, performed her first trip of the season on yesterday, Monday, morning without any interuption by ice. She reports all free along the coast between Amherstburg and Bar Point, though wending towards the American shore in the direction of Monroe and Toledo there has thus far been no change. The American channel, it may also be stated, is clear to a short distance below Gibralter. Last year the Detroit river to Bar Point was free of ice February 13. The latest opening between Detroit and Bar Point was in 1829, which according to the records, was deferred until May 23, while the earliest passage was in 1845. January 4th the steamer United States, Captain Harry Whitaken, coming through from Buffalo to Detroit by cautiously dodging the icebergs en route. From this point towards Port Huron it is by no means improbable that communication will be opened by the middle of the present month. The fishermen, who during the winter had shanties located on Lake St. Clair, have removed them and there are indications of a general breaking up and, as evidence of that fact, ice is passing here from that locality in considerable quantities. Some Canadians, along the Canada shore of Lake St. Clair, while removing their shanties a few days since, lost one of their number, a lad of 18 years, named Jassap, falling through a weak part and disappearing.

The steamer Idlewild is being prepared for business and will commence her trips on the fifteenth instant, commanded as last year by Captain D. McLachlan, with Mr. Wm. Iruff engineer, who for several seasons has very acceptably filled that position. Although it was stated on authority some time since that the Star Line of steamers would have their routes changed the ensuing season, I was yesterday informed by Mr. A. N. Moffatt, the manager of the line, that the arrangements of last season are not to be interferred with save in one or two instances, a change of masters. Detroit and Port Huron as a route had its beginning as far back as 1830 the steamer Argo, a diminutive craft, commanded by Captain John Burtis, commenced plying between the two points on alternate days and was subsequently followed by the Gen. Gratiot, Captain Arthur Edwards, and numerous others up to the present period which want of space forbids enumerating for the time being.

The claim of the propeller St. Paul vs. the Fire Insurance Associations, which has been pending in admiralty here for some time, was decided on Saturday. It will be remembered the steamer took fire on the Sault river in the fall of 1883, and was scuttled. She was raised, brought to Detroit, and and while discharging her cargo, two carboys of sulphuric acid burst and set her on fire again. She was again sunk, causing more damage than in the first instance. The case has been decided in favor of the steamer and as there are several companies interested each will have to bear their respective proportion of the adjustments, which will not vary far from $40,000.

Captain Ward's Lake Superior line appointments have not yet been made manifest.

The steamer George A. Marsh was inspected at this port yesterday. The weather has set in warm. J. W. H.

SANDUSKY.

Special to the Marine Record

The tug Mystic has been undergoing heavy repairs and improvements and is ready for the season's work.

The steamer Alaska is expected here on the 20th from Detroit.

This is the first port opened on the lakes.

The steamer American Eagle is now making her regular trips between this port and the islands. She is doing a large freight business.

The steambarge Bessie is just now carrying a large amount of lime from Hartshorn's docks to this city.

Captain John Crampee has purchased the steamer J. V. Lutts, from McFall Brothers for $1,500.

A number of vessels now in this port have taken contracts for cargoes of coal to upper lake ports as soon as navigation opens. B.

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MARITIME LAW.

Reported for the Marine Record.

THE ALBERTA-OSBORN COLLISION CASE—MISAPPREHENSION—FOG SIGNALS—EXCESSIVE SPEED—CHANGE OF POSITION.

United States District Court, E. D. Michigan, February 23, 1885.

In admiralty.

Messrs. H. H. Swan and H. D. Goluder for libelants.

Messrs. W A. Moore, F. H. Canfield & Kremer for cross-libelant.

Brown, J.:

This collision was evidently caused by a misapprehension upon the part of the officers of each vessel with regard to the course of the other. The officers of the Osborn, as well as those of her schooners in tow, and the officers of the steambarge Hecla, which was following behind her, heard, or thought they heard, the first whistle of the Alberta, from one to two points on their starboard bow, the second and third whistles still broader off, and the last one, an imperfect, muffled sound, well upon the Osborn's starboard beam. These signals indicated to them that the Alberta was on a substantially parallel and opposite course, and would pass safely up the lake on their starboard hand. This theory, however, cannot be true, unless we reject entirely the testimony of the officers and wheelsman of the Alberta, and believe that she was at least three points off her proper course, and bound to some port on the south shore of the lake instead of to Port Arthur upon the north shore. Upon the other hand, the officers of the Alberta heard the whistles of the Osborn apparently off their port bow, and were so fully satisfied that each successive whistle was broader off on the port side, that, as Capt. Anderson expressed it, "We expected to hear the next whistle abaft the beam." Yet the fact is not disputed that the Osborn was actually crossing his bows, but it was learned too late to avoid the catastrophe. Without expressing a decided opinion upon the trustworthiness of the expert testimony, which tended to show that a practiced ear can determine within a point the bearing of a whistle in a fog, the facts of this case demonstrate that this is a very uncertain method of ascertaining the course of an approaching vessel, when the hearer is himself upon another vessel moving rapidly in different direction.

In attempting to gather the actual facts of a collision from the contradictory testimony of witnesses two canons of construction should be constantly borne in mind:

1. The testimony of the crew of each vessel, with regard to her course and the various orders given to and executed by the engineer and wheelsman, should be credited in preference to the testimony of an equal number of witnesses upon another vessel relating to her movements as they appear to them.

2. The probability that a vessel, bound from one headland to another, will take the usual and direct course between them is so strong that a deviation from such course, without adequate cause, ought to be established by the clearest preponderance of evidence.

Gauged by these rules the angle at which these vessels approached each other is readily ascertained. The proper course from Marquette to Whitefish Point is E. ½ N., but on account of the fog that evening, and to give the headland a wider berth, the Osborn deviated half a point to the northward, making her actual course, as sworn to by her officers and wheelsman, east by north. Upon the other hand, the compass course from Whitefish Point to Port Arthur is N. W. by W. ½ W., but to keep clear of vessels coming down the lake Capt. Anderson ordered his wheelsman to pursue a course northwest half west for one hour after passing Whitefish Point light. I have no doubt the collision occurred at or very near the intersection of these courses. As the two steamers were meeting at an angle of only three and a-half points, and the Alberta struck the Osborn at an angle of one point greater or less than a right angle (and whether it is greater or less the evidence is conflicting) there is a difference of from three and a half to five and a-half points to be accounted for. That the Osborn starboarded one point just before the collision is averred in her libel and proven by her testimony, and I have a strong impression that the Alberta, at about the same time, ported her wheel two or three points to give the Osborn a wider berth. It is true her officers made no mention of this, but it is indicated by the angle at which the vessels came in contact, and also by the testimony of the Osborn's crew, that the Alberta seemed to be approaching them upon a swing to starboard. The testimony of the Osborn's crew, the shape of the cut, the appearance of the Alberta's bow as she lay in the dry dock after the collision, and the fact that the Osborn's line was snapped by the collision, all indicate that the blow was delivered from behind rather than from forward, and such I am inclined to think was the fact, although there is considerable testimony to the contrary.

If the Alberta did port in actual ignorance of the position and course of the Osborn, it was a fault for which she ought to be condemned. It is one of the elementary rules of navigation that a vessel ought never to alter her helm in ignorance of the position and course of all approaching vessels. It is true that by such change she may escape collision, but the chances are equal that she will bring it about. Instead of experimenting it is her duty to stop and sometimes to reverse:

The James Watt, 2, W. Rob. 270, 277.
The Fougainvile, 1, B. 5, P. C. 316.
The Franconia, 4, Ben. 181, 185.
The Shakespeare, 4, Ben, 128.
The Lorne, 2, Stuart, Vice Adm. 177.
The Scotia, 5, Blatch, 227.

I do not find it necessary, however, to express a decided opinion as to the guilt of the Alberta in this particular, since she was so clearly at fault for maintaining an excessive speed, that her case is hardly susceptible of argument. She was navigating the most frequented waters of Lake Superior. Almost the entire commerce of the lake takes its course to or from Whitefish Point light. It was night, and there was a fog prevailing so dense that the headlight of a vessel could be but dimly seen at a distance of 600 feet. The fog signal of at least two steamers were in plain hearing and bearing somewhat ahead. These signals indicated, in language well understood on the lakes, that both steamers were encumbered by tows. All her surroundings called for the utmost precaution; yet she was proceeding at such a speed that the force of the collision drove her stem about half way through the Osborn, making a wedge-shaped hole 16 feet in depth by 12 feet in width. Under these circumstances it is useless to argue that the testimony of the master and engineer of the Alberta show that she was proceeding under a slow check. The wound itself is the one fact which outweighs all the other evidence. It cannot be argued or explained away. I am satisfied from the testimony of the experts as to the weight and momentum of the respective vessels that she must have been proceeding at a speed of at least ten miles an hour. It is hardly necessary to say that this is not the moderate rate of speed which the rule requires.

There was an equal obligation on the part of the Osborn to maintain a moderate rate of speed. She was not only encompassed by similar perils and warned by lake signals of the approach of another steamer, but these signals indicated that the Alberta was on her starboard bow, and hence that if the two steamers should turn out to be upon crossing courses, it would be incumbent upon her, under the 19th rule, to avoid the Alberta from the moment she became visible, except, perhaps, so far as the obligation might be modified by the fact that the Osborn had two vessels in tow. It is true that she assumed that the Alberta was upon a course substantially parallel with her own, but she had no right to act upon such an assumption in disregard to the settled rules of navigation, or to the extent she might have done had the Alberta been visible and exhibiting her green light. Her running time from Marquette shows her general speed that day to have been about seven miles per hour. No order was given to run under a check when the fog arose or when the signals were first heard, and the only evidence that she was not proceeding at her usual rate is contained in the statements of the master and engineer, that the latter was instructed to let his fires run down a little, as they would necessarily be delayed until daylight in Whisky Bay. This probably reduced her speed from one to two miles an hour, so that we are safe in assuming that she must have been running at from five to six miles per hour. A like rate of speed was condemned in the case of the Colorado, 91, U. S. 692, in which the Supreme Court adopted the language used by the Privy Council, in the case of the Batavia, 9, Moore P. C, 286. Indeed the law seems to be now well settled that that is only a moderate rate of speed which will enable a steamer to be kept under a ready control, and to be stopped at such a distance as other vessels can be seen from her, provided such vessels themselves make use of proper signals to notify other vessels of their proximity.

The Western Metropolis, 7, Blatch, 214.
The D. S. Gregory, 2 M Ben, 166.
The Louisiana, 2, Ben. 271.
The Monticello, 1, Holmes 7.

At first blush I had some doubt whether the fault of the Osborn in this particular could be said to have contributed to the collision. The presumption is that it did. It is true that the blow was delivered by the Alberta, but this was a mere accident. If the Osborn had been going at a lower rate of speed she would not have reached the spot where the collision took place in time to receive the blow.

While I should be unwilling to say that rule 21 absolutely demands a moderation of speed at all times and under all circumstances, whenever a fog arises, the obligation unquestionably attaches wherever the signals of an approaching vessel are heard from a point where, whatever the course of such vessel may be, there is any risk of collision. It is possible that the fact that the Osborn had two vessels in tow might have relieved her of the duty of giving way to the Alberta, but it certainly did not relieve her of the necessity of so moderating her speed as to keep her under complete control. I think she must be adjudged guilty of contributory negligence in this particular.

Neither of these steamers was provided with such a lookout as the exigencies of the case required. Both of them were under charge of the master and second mate, who stood together, on the bridge in the one case, and in front of the pilot house in the other. Neither vessel had a lookout forward or aloft, or in any other position where his opportunities of observation were better than those of the officer of the deck. It was held in the case of the Colorado, above cited, that steamers, while navigating in dense fogs, should carry at least two lookouts, and if there had been any evidence that a want of this precaution had contributed to this collision, I should have felt bound to condemn the steamers for this omission. But as each appears to have discovered the other as soon as it was possible to do so, I am not prepared to say that either should be adjudged in fault on that account.

A decree will be entered adjudging both vessels in fault for excessive speed, dividing the damages, and referring the case to a commissioner to assess and report the same.

REGARDING LIENS.

The following bill has been introduced in the Assembly by Mr. Hubbell—read twice and referred to the committee on commerce and navigation—reported favorably from said committee and by unanimous consent ordered to a third reading and printed.

An act, to amend chapter four hundred and twenty-two of the laws of eighteen hundred sixty-three, entitled "An act to amend chapter four hundred and eighty-two of the laws of eighteen hundred sixty-two, in relation to liens on vessels." The people of the State of New York, represented in Senate and Assembly do enact as follows:

SECTION 1. Section two of said act is hereby amended so as to read as follows:

§ 2. The second section of the said chapter shall not apply to vessels navigating the western and north-western lakes, or either or any of them, or the St. Lawrence river. Any debt contracted by the master, owner, charterer, builder, or consignee of any ship or vessel navigating such lakes, or either of them, or navigating said river, or by the agent of such master, owner, charterer, builder or consignee, shall cease to be a lien at the expiration of six months after the first day of January next succeeding the time such debt shall have been contracted, unless during the said six months such ship or vessel shall be absent from the port at which such debt was contracted, in which case the said lien shall continue until the expiration of ten days after such ship or vessel shall next return to said port. In all cases such debt shall cease to be a lien upon such ship or vessel, unless the person having such debt shall, by the first Tuesday of February next succeeding the time such debt shall have been contracted, cause to be drawn up, verified and filed, specifications of such debt, in the form and comprising the statements prescribed by said chapter.

§ 2. This act shall take effect immediately.

GENERAL NEWS.

It is thought that the steamers Prussia and Ocean will be put on the lower lake trade the coming summer. The completion of the Canadian Pacific road has stopped their trade between Duluth and the north shore of lake Superior.

All members of the Canadian Marine Engineers' Association have agreed to report to the Government inspectors the names of all engineers in charge of steamboats who are not provided with certificates under the steamboat inspection act.

The Globe Iron Ship-building Company are getting to work rapidly on the new sidewheel steamboats they are to build for Messrs. Cole and Sloan. The keel of one of them is ready to put on the blocks and her frames are nearly all bent ready to put in place. The keel of the second boat will be laid on the blocks to be vacated by the new steamship soon to be launched.

The steamship Arizona was taken by the British government with the option of purchase. The America will be fitted with guns, but for the present will remain at the disposal of the owners. The government expected to secure the steamships Oregon and Alaska. These measures have been taken because Russia has made overtures to the English steamship companies for the purchase of fast steamers.

The propeller Morley, which went ashore at Grand Marais, Lake Superior, last November, lies in quicksand and is covered with ice. William Brown, who was left in charge of the wreck, has written her owners that the boat is practically in the same condition that she was when the crew abandoned her. Arrangements are now being made to send a wrecking expedition to her at the earliest possible moment.

Seth D. Caldwell, who for several years has been connected with the Red Line Transit Company, and formerly with the Union Steamboat Company, at Buffalo, has been appointed traveling freight agent of the Union Pacific for New York State. It is not definitely known where his headquarters will be, but probably at New York city. Mr. Caldwell is said to be well up in freight matters, and will make a good man for the position.

Lake St. Clair from Belle River to Stony Point is still dotted with fish shanties, some of them three miles from the shore. The shanties average 3x4 feet in size, and can be moved wherever wanted. A hole is cut in the ice and a shanty set over it. The fisherman sits by a small stove, spear in his hand, watching a decoy minnow. When a fish comes in sight he darts the spear at it. Muskalonge, pike, pickerel, and black bass are speared. The fishermen spear from daylight to dark, and average 75 to 100 pounds daily. The fish are sold in Detroit at five and six cents a pound.

The Richelieu and Ontario Navigation Company, through its agents, Messrs. Labelle and Senecal, have made arrangements with the Utica & Black river railroad to connect with their steamers in the upper St. Lawrence the coming summer. This, while it means much for both the railroad and steamer companies, means much for Clayton, inasmuch as the connection will without doubt, be made at this point. The directors claim that this will be worth many thousand dollars to the company and is better than an offset to the arrangements made between the Thousand Island Steamboat Company and the Canadian Pacific and the Vanderbilt system of which we made mention a short time since.—*On the St. Lawrence.*

THE WHALE CLUB.

MILWAUKEE, March 29.

Special to the Marine Record.

The Whale Club held a special meeting at the Milwaukee shipyard office for the purpose of appointing an investigating committee for the application for membership, which has been so large on account of the numerous master marines which are arriving daily from Chicago and the lower lake ports, Capt. Marion Tinny in the chair as whale and Capt. Fred Starke as whaler. Capt. F. C. Moxon was elected to the office of treasurer. After the business of the evening was over the club gave their regular vocal and musical entertainment, when the following songs and recitations were given: "The Moving of the Northwest," song by Capt. Tinney; "The Sheriff's Revenge," recitation by Capt. Chamberlin; "Welcome, Welcome, Little Stranger," by special request, song by F. Starke. After the applause had subsided the chairman requested to hear from the visiting members of other whale clubs, as there were several in the room.

Capt. Barnes, of Manitowoc, then favored the club with a recitation, entitled "The Cruise of the Homer," and Capt. Rend favored the company with a history of the city of Manitowoc, when the club adjourned until next Saturday. G.

THE NEW BILL OF LADING.

Following is the new bill of lading as passed by the House of Representatives February 3, 1885, and reported to the Senate:

An act to regulate the forms of bills of lading and the duties and liabilities of shipowners and others:

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, that every vessel publicly offered at any port of the United States for the conveyance of goods and merchandise on the high seas, and all vessels bringing general cargo to any port of the United States, shall be liable to all the conditions and restrictions of this act.

Section. 2. That it shall not be lawful for any such vessel, her owners, master, agent, or manager, to issue any bill of lading which does not clearly specify the exact voyage intended to be made, and any and every port at which it is contemplated she shall touch in the course of said voyage; and every departure from such voyage, save only when compelled thereto by dangers of the sea, unforseen necessity, *vis major*, or to save life and property in distress at sea, and to tow and convey the same into the nearest or most convenient port of safety, shall be deemed a deviation. But nothing in this act contained shall prevent or interfere with the right of the vessel to reserve to herself the privilege of calling at or returning to any port or ports named in the bill of lading; and a failure to exercise such privilege shall not constitute a violation of this act or be deemed a deviation.

Section. 3. That it shall not be lawful for any such vessel, her owners, master, agent, or manager, to insert in any bill of lading any clause, covenant, or agreement whereby the obligations of the owners of said vessel to properly equip, man, provision, and outfit said vessel, and in every way and manner within their, his, or her power to render said vessel seaworthy and capable of performing her intended voyage, shall in any wise be lessened, weakened, or avoided; and all provisions and clauses contained in any bill of lading issued by any such public carrier relieving from liability the vessel, her owners, or master, for their or his neglect, or for any improper condition of the vessel shall be null and void and of no effect in law.

Section. 4. That it shall not be lawful for any such public carrier, by any clause or exception in any contract or bill of lading, to be relieved from liability for its, his, her or their negligence, fault or failure in proper stowage, custody, and care of all lawful merchandise confided to their charge, nor for failure by reason of negligence to deliver the same, nor to provide for or adopt any other or different transportation than that agreed on by the vessel or voyage specified by which the goods have been shipped, liability for danger of the sea, *vis major*, or unforseen necessity being in all cases under this act excepted, nor to limit the extent of their liability to less than an indemnity to the claimant; nor shall anything in this act contained be construed as enlarging the right of any carrier to limit his liability other than as now established by law.

Section. 5. That all goods and merchandise delivered to and received by any such public carrier shall be deemed as shipped subject to the conditions of this act, and entitled to a bill of lading in accordance therewith; and upon the refusal of the master or agent to issue such bill of lading on demand within a reasonable period after shipment, unless such goods and merchandise have been received from a preceding carrier, and a bill of lading in conformity hereto has been issued, clearance of such vessel upon which said goods were to be or were laden shall be refused by the custom house authorities of the port until such bill of lading be granted; and such vessels shall be liable to an action *in rem* for all damages and losses suffered by the shippers of goods or merchandise by reason of such refusal or neglect. In case of any dispute as to whether the terms of any bill of lading, as well as all namely. "It is thereby declared that the bill of lading, as well as all other copies thereof, are intended to conform in all particulars to the act of Congress of 1885, on the subject of the form of bills of lading; and anything herein contained to the contrary is hereby made null and void." And thereupon the collector may deem such insertion or indorsement as making the bill of lading conform hereto, and shall grant the clearance of the vessel is otherwise entitled thereto.

Section. 6. That if any vessel, her master, agent, or manager shall plead, in bar or defence of any suit at law, any clause or exception of any bill of lading contrary to the provisions of this act, the statutes, relating to shipowners, shall not be held to apply to such vessel, owners, or either, or any of them.

Section. 8. This act shall take effect on July 1, 1885.

Passed the House of Representatives February 3, 1885.

THE ÆTNA GRATE.

As an evidence of the esteem in which the Ætna Grates are held, we refer to many well-known parties using them in this city and vicinity:

City water works, 14 boilers, County Infirmary, City Hospital, Lake street; County Court House, Protestant Orphan Asylum, Globe Iron Works, Variety Iron Works Company, H. P. Nail Works, Lamson, Sessions & Co., bolt and nut works, Cleveland Nut Company, Cleveland Spring Company, Forest City Spring Company, Cleveland Burial Case Company, Presley & Co., dry dock; Northern Ohio Woolen Mill, Northern Ohio Blanket Mill, Isaac Lelay, brewer; Gehring's brewery, Cleveland Linseed Oil Company, Forest City File Works, Cleveland Machine Company, Morley's White Lead Works, Peckstow, Wilcox & Co., Broadway Flour Mills, Cleveland Rubber Company, Cleveland Baking Company, Grasselli & Sons' chemical works, Marsh & Harwood, chemical works; Austin Powder Company, Schriber's Tobacco Works, J. B. Savage, printing house; Hardee Block, Sterling & Co., Paine Block, Vincent, Sturm & Barstow, Averill Paint Company, Herendeen Furniture Company, Townsend's Block, Scofield's Block, Cleveland Wire Works, L. S. & M. S. R. R. Block, C., C., C. & I. R. R. Block, Weddell House, American House, Cummer Engine Company, Citizens Saving & Loan Association, The Trumbull Iron Works, Girard, O.; Board of Education, Central High School, Case Avenue School, Brownell Street School, Rockwell Street School, Mayflower Street School, Orchard Street School, Walton Avenue School, Broadway Street School, Adelbert College, Indiana State Asylum for the Insane, Indiana Deaf and Dumb Asylum, Water Works, Youngstown, O.; Enterprise Rolling Mill Company, Youngstown; Water Works, Elyria, O.; J. S. Metcalf, flour mills, Elyria, O.; Topliff & Ely, carriage tops, Elyria, O; Bullock's Flour Mill, Elyria, O.; County Court House, Elyria, O.; Bucher, Gibbs & Co., Canton, O.; Diebold Safe & Lock Co., Canton, O.; City Water Works, Akron, O.; Schumacher's Flour Mills, Akron, O.; Allen's flour mills, Akron, O.; Sandusky Tool Company, Sandusky, O.

Marine References—Steamers Egyptian, in use 7 years; Cormorant, in use 6 years; Wocoken, in use 5 years; City of Rome, in use 3 years; Cumberland, in use 3 years; D. W. Rust, in use 8 years; H. D. Coffinbery, in use 7 years; E. B. Hale, in use 7 years; H. M. Chisholm, in use 3 years; John M. Glidden, in use 6 years; Smith Moore, in use 4½ years; William Edwards, in use 5 years; Robert Wallace, in use 2 years; S. E. Evert, in use 3 years; Colonial, in use 2 year; Continental, in use 2 year; Buffalo, in use 4½ years; Chicago, in use 3 years; Progress, in use 3 years; Oscar Townsend, in use 3 years; Mayflower, in use 3 years; City of Concord, in use 4 years; Garden City, in use 4 years; R. B. Hayes, in use 5 years; Sparta, in use 2 years; Vienna, in use 3 years; Havana, in use 2 years; H. C. Schnoor, in use 7 years; William Chisholm, George Spencer, Kasota, Luella Worthington, City of Cleveland, H. V. Ketchum, D. M. Wilson, Ohio, Jarvis Lord, W. H. Thew, and the new iron steamer now being completed at the Globe. Tugs Thomas Quayle, Jessie, International, Record, Relief, in use 2 years; Alanson Sumner, in use 1 year; Bennett, in use 5 years; Effie L., in use 6 years.

OFFICIAL NUMBERS AND SIGNAL LETTERS.

TREASURY DEPARTMENT,
BUREAU OF NAVIGATION.
March 30, 1885.

To the Editor of the Marine Record:

Following is a list of merchant vessels of the United States to which official numbers and signal letters were assigned by the Bureau of Navigation, Treasury Deparment, during the week ended March, 28, 1885.

Name.	Tonnage. Gross.	Tonnage. Net.	Home Port.	Rig.	Signal Letters.	Official Number.
SAIL VESSELS.						
Charles A. Swift.	25.72	24.44	Mobile, Ala.	Sc.	.....	126,279
In Time.	9.86	9.37	Noank, Conn.	Sl.	.....	100,375
Joseph A Manta.	70 26	66 75	Provincetown, Mass.	Sc.	.....	76 560
New Union.	42 80	40.66	Pearlington, Miss.	Sc.	.....	130.330
Siren.	5.96	5.67	Noank, Conn.	Sl.	.....	116,039
STEAM VESSELS.						
Brazos.	343.18	254.18	Galveston, Tex.	St. p.	.....	3,309
Border City.	96.96	88 86	Memphis, Tenn.	St. p.	.....	3,310
Knight No 2.	247.88	146 71	San Francisco, Cal.	St. p.	.....	14.434
Pilot Boy.	294.17	192.68	Charleston, S. C.	St. p.	.....	150.345
UNRIGG'D VESSELS						
Monauk.	107 12	101 77	New York, N. Y.	Scow.	.....	51,154

JARVIS PATTEN, Commissioner.

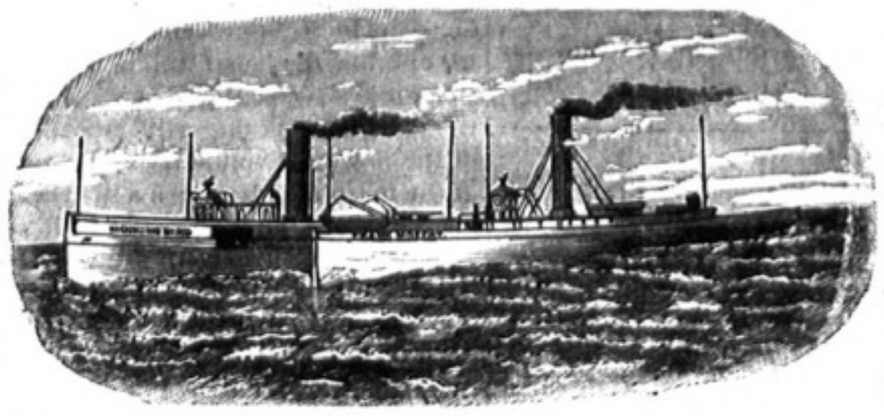
DREDGING PROPOSALS RECEIVED.

Proposals for dredging the river and removing bars and other obstructions between the Lake Shore bridge and the new canal transfer lock and also in the old river bed, were received at the Board of Improvements office recently. The following bids were made: For excavating per cubic yard, L. P. and J. A. Smith, 28 cents; W. J. Starkweather, 29 cents; William E. Rooney, 17 cents; Michael Kerr and others, of Erie, Pa., 22 cents; Jessie Simms, 25 cents. For each hour in removing logs and like obstructions the proposals of these five bidders were respectively $12, $11, $8, $8, and $8. Mr. Rooney, the lowest bidder, resides in Toledo.

Subscribe for the MARINE RECORD

MOFFAT TUG LINE.

TUGS. MOCKING BIRD, JOHN MARTIN, FRANK MOFFAT,



TUGS. ADMIRAL PORTER, KITTIE HAIGHT, IVER QUEEN,

WRECKING AND RAFT TOWING A SPECIALTY.

Steam Pumps, Hawsers and Divers to Let.

JOHN CORNWALL, Supt., Port Huron, Mich.

A. N. MOFFAT, Prest., Ft. of Shelby-st., Detroit, Mich

VESSEL OWNERS AND AGENTS.

HENRY BROCK,
Vessel Agent.
ROOM 11, 130 WATER STREET,
CLEVELAND, OHIO.

H. J. WEBB & CO.,
Ship Brokers, Vessel Owners and Agents.
[ESTABLISHED IN 1856.]
H. J. WEBB & CO., will charter Vessels for Lake Trade. Special attention given to Chartering Vessels in the Lake Superior Iron Ore Trade, both for the season and single trip.
ARCADE BUILDING, 101 ST. CLAIR ST., Cleveland, Ohio.
TELEPHONE {Office, No. 338. Residence, No. 1328.

THOS. WILSON
MANAGING OWNER
Wilson's Transit Line.
Gen. Forwarder. Freight and Vessel Agent.
CLEVELAND, O.

PALMER & BENHAM,
Vessel Owners & Agents,
New Bank Building, corner of Superior and Bank Street, Cleveland, Ohio.

MOORE and BARTOW,
Ship Brokers and Agents,
No. 101 St. Clair Street, Room 15.
CLEVELAND, - OHIO.

D. M. BECKER,
Commercial Broker and Vessel Agent,
Vessels chartered, purchased and sold; contracts made for coarse and heavy freights,
Lake Superior and Escanaba iron ore charters for single trip or season a specialty.
Office, 130 Water St. Room 14. Coal & Iron Ex. Build'g, Telephone No. 953. Cleveland, O.

ALEX McDOUGALL,
VESSEL AGENT AND BROKER,
DULUTH.
Owners and masters of vessels wishing to get cargoes of grain from this port will do well to confer with me. Will be glad to furnish information in regard to cargoes, also in relation to docks, depth of water, etc., at **Duluth, Agate Bay** (new iron ore port), **Port Arthur, Washburn, Ashland,** and all points near the west end of Lake Superior. Good gangs of men furnished on short notice for trimming cargoes of grain, loading and unloading all kinds of freight.

JAMES T. ROSE,
Vessel Agent and Broker,
BOX 1616, DULUTH, MINN.
Late Gen. Ag't for Collingwood Line of Steamers
Special Attention Paid to Chartering Vessels.

MARINE INSURANCE AGENTS.

W. B. SCOTT & SON,
Fire and Marine Insurance Agents and Vessel Brokers.
Telephone, No. 18.
Office, 130 South Water-St., Cleveland, O.

PROCTORS IN ADMIRALTY.

ROBERT RAE,
Admiralty and Insurance Law Office,
Room 37, Merchants' building, CHICAGO, ILL.

J. A. OSBORNE,
Attorney, Proctor & Advocate,
ROOM 6, 190 SUPERIOR ST.,
CLEVELAND, OHIO.

LAKE SHORE & MICHIGAN SOUTHERN.

Commencing Sunday, May 11, 1884, at 12 o'clock noon the time given in the figures below is the new standard (Ninetieth meridian) time, which is thirty-three minutes slower than Cleveland time proper:

Eastward.	Arrive	Depart.
No 4, Fast Limited Express	*1 10 A M	*1 25 A M
No 8, N Y, B & A Express	*6 35 A M	*7 00 A M
No 26, Elyria Accommodation	†8 05 A M	.....
No 35, Buffalo Ac'm via Sandusky	†10 35 A M	†10 50 A M
No 35, Toledo Accom via Norwalk	†10 35 A M	†10 50 A M
No 12, N Y & B Fast Express	*1 55 P M	*2 25 P M
No 14, Special N Y & Bos Expres	.....	5 00 P M
No 2, Night Ex via Norwalk	9 40 P M	†10 00 P M
No 22, Night Ex via Sandusky	†9 42 P M	.....
No 26, Conneaut Accommodation	†4 25 P M	.....

Westward.	Arrive.	Depart.
No 1, Fast Limited Express	*11 55 A M	*12 05 A M
No 23, Mich Express via Sandusky	*2 15 A M	*2 35 A M
No 3, Chicago Express via " "	‡6 05 A M	6 30 A M
No 25, Mich Accom Norwalk	.....	†6 10 A M
No 21, Toledo Ex via Norwalk	†12 50 P M	†3 20 P M
No 5, St Louis Ex via Sandusky	†12 05 P M	12 50 P M
No 9, Chi Pac Fx via Norwalk	*6 10 P M	*4 40 P M
No 31, Elyria ac to Elyria only	.....	†4 30 P M
No 27, Conneaut Accommodation	†8 10 A M	.....

Sunday train for Nottingham—Depart 8:30 a. m. and 1:45 p. m.; returning, leave Nottingham at 9:05 a. m. and 3:45 p. m.

Reference marks—* Daily, † daily, except Sunday, ‡ daily, except Monday.

For full information as to trains and connections apply at the new city ticket office, corner Seneca and St. Clair streets, Lake Shore block.

The Nickel Plate!

NEW YORK, CHICAGO & ST. LOUIS RAILWAY.

The passenger equipment of this New Trunk Line is all new and is supplied with the latest appliances necessary to safe speedy and comfortable travel.

Trains leave and arrive at the Union Depot, Van Buren street, Chicago, and N Y, L E & W R'y depot at Buffalo.

Following is the time in effect March 22, 1885, and until further notice:

GOING EAST.	LV.	AR	GOING WEST.
A. M.			P. M.
7 50	.....	Chicago	7 50
9 50	.....	Valparaiso	5 42
P. M.			
1 50	.....	Fort Wayne	2 10
2 05	.....	New Haven	1 35
			A. M.
3 48	.....	Leipsic	11 36
4 46	.....	Arcadia	10 35
A. M.			P. M.
6 50	5 00	Fostoria	10 22 8 50
7 35	5 45	Green Springs	9 44 8 05
8 15	6 20	Bellevue	9 20 7 40
10 45	9 02	AR Cleveland LV	6 45 4 51
11 55	.....	Painesville	3 34
P. M.			
12 44	.....	Ashtabula	2 43
1 14	.....	Conneaut	2 13
2 33	.....	Erie	12 50
			A. M
4 09	.....	Dunkirk	11 16
			A. M.
5 45	.....	AR Buffalo LV.	9 40

ROCKY RIVER ACCOMMODATION.
Depart—7:45 a. m., 1:35 p. m.

EUCLID AVENUE ACCOMMODATION.
Depart—6 24 a. m., 9:10 a. m., 5:05 p. m.
All trains daily except Sunday.

Through tickets to all points are on sale at principal offices of the company at LOWEST RATES for any class of tickets desired. Baggage checked to destination.

For information, call on nearest agent of the Company, or address

B. F. HORNER,
Gen'l Passenger Agent,

LEWIS WILLIAMS,
General Manager. Cleveland, O.

BEE LINE.

CLEVELAND, COLUMBUS, CINCINNATI & INDIANAPOLIS.

Commencing Sunday, November 23, 1884, trains of the Bee Line—Cleveland, Columbus, Cincinnati & Indianapolis Railway—will leave and arrive at Cleveland as follows, CENTRAL STANDARD TIME, 33 minutes slower than Cleveland time:

	Depart
No. 3, Columbus, Cincinnati & Ind Ex	9:00 A M
No. 23, Galion & Wheeling Express	6:50 A M
No. 9, Col., Cin., Ind & St. Louis Ex	*6:50 P M
No. 5, Col. Cin., Ind. & St. Louis Express	*12 25 P M
No. 27, Galion & C. L. & W. Acc	3:30 P M
No. 29, Massillon & Ulrichsville Ex	4.30 P M
	Arrive.
No. 8, Col, Cin, Ind. & St. Louis Exp	*6:40 A M
No. 20, Uhrichsville & Massillon Ex	8:55 A M
No. 2, Col. Cin. & Indianapolis Express	9:50 P M
No. 14, St. Louis, Ind., Cin. & Col. Ex	*4:45 P M
No. 22, Galion Acc	9:20 A M
No. 26, Wheeling Accom	4:15 P M
No. 4, Col., Cin. & N. Y. Express	1:15 A M

Trains marked * daily, all other trains daily except Sunday.

E. B. THOMAS, General Manager. O. B. SKINNER, Traffic Manager.
A. J. SMITH, General Passenger Agt., CLEVELAND, OHIO.

The Marine Record.

Published Every Thursday at 144 Superior Street, [Leader Building.]

A. A. POMEROY, Editor and Proprietor.

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Articles, letters and queries on all subjects are solicited.

ADVERTISING RATES MADE KNOWN ON APPLICATION.

Entered at the Post Office at Cleveland as second-class mail matter.

CLEVELAND, OHIO, THURSDAY, APRIL 9.

THE THEORY OF FATALITY.

In the MARINE RECORD of February 26 were printed extracts from Judge Brown's decision in the Alberta-Osborn collision case. The extracts contained the salient points of the learned judge's argument and were commented on editorially. Much has since been said in regard to the matter and queries made as to how a judge could render such a verdict after having, by a full measure of legal wisdom, by strong and positive logic, established a clear case against the Alberta. The MARINE RECORD of that date was sought for from almost every quarter on the lakes, and by some readers it was thought that only the points favorable to the Osborn had been produced, but such was not the case, as will be seen by those who will closely read and compare the full decision, as rendered by Judge Brown, which will be found on the second page of to-day's RECORD. As we said in a previous article, federal judges, in deciding collision cases, are prone to adopt the popular practice of dividing damages, on the theory that the loss can be borne easier by two victims than by one, that in the case of one being compelled to stand all the loss he will question the wisdom of the judge, a manner of rendering justice which is to say the least reprehensible, as it has a tendency to lead a judge to decide in his own mind before argument and aside from evidence, that he will compromise the case by a line of reasoning to show contributory cause.

We can not forbear calling the attention of the reader to the theory of fatality advanced by the learned judge in summing up his points. He says: "It is one of the elementary rules of navigation that a vessel ought never to change her helm while in ignorance of the position and course of an approaching vessel. It is true that by such change she may escape a collision, but the chances are equal that she may bring it about. Instead of experimenting it is her duty to stop and sometimes to reverse. I do not find it necessary to express a decided opinion as to the guilt of the Alberta in this particular, since she was so clearly at fault for maintaining an excessive speed that her case is hardly susceptible of argument. All her surroundings called for the utmost caution, yet she was proceeding at such speed that the force of the collision drove her stem about half way through the Osborn. Under these circumstances it is useless to argue that the testimony of the master and engineer of the Alberta to show that she was proceeding under a slow check. The wound itself is the one fact that outweighs all the other evidence. I am satisfied that she must have been proceeding at a speed of at least ten miles per hour." On the other hand Judge Brown says: "It is safe to assume that the Osborn was running at from five to six miles per hour. The law seems to be now well settled that that is only a moderate rate of speed, which will enable a steamer to be kept under a ready control, to be stopped at such distance as other vessels can be seen from her, provided such vessels make use of proper signals to notify other vessels of their proximity." It will be seen by the foregoing that the judge, in his argument, lays the burden of the blame on the Alberta, and we do not pretend to say which master was at fault in the manœuvering of the vessels after their proximity became apparent, or collision inevitable. After finding the above facts the judge approaches the weak point in his opinion, the belief in fatality, the imperative force of circumstances which brought the two steamers into collision, the negation of the power of voluntary action on the part of the masters of both boats in order that the steamer with the tow should be in the exact spot when she received the crashing blow, in order to render her contributory to the damage which caused her own destruction, her loss to her owners, and the loss of three precious lives. That is to say, if the Osborn had not been in that exact spot at that moment no collision would have occurred.

Judge Brown could have said, with equal wisdom, that if the Osborn had been running at a rate of speed equal to that of the Alberta at least ten miles per hour, she would have passed the danger spot, cleared the straits and escaped scott free; that no collision would have occurred. It is evident, therefore, that from the ground occupied by the learned judge the Osborn was doomed, that no amount of vigilance on the part of the lookout on either boat could save her from predestined destruction and that her owners should expect to bear the loss.

This opinion if followed to a conclusion, can not but convince one that in the verdict Judge Brown has reversed his own argument, his logic of cause and effect, and reminds us of a pension case which came up for trial before him last January, the United States vs. Van Vliet, a prosecution for a violation of Revised Statutes, section 5485, wherein an agent demanded and received a greater compensation for services in procuring a pension than is allowed by law. The judge held that "prosecution under this section can not be maintained for any offense committed prior to July 4, 1884," on the ground that it is a well settled point that a penal statute cannot be enforced after it has been repealed, though the offense has been committed before such repeal unless there be a saving clause reserving a right of prosecution," and finding that "in this instance the act imposing the punishment is still in force, but the act defining the offense has been repealed," the defendant was discharged. On February 23 we find Judge Brown reversing the above decision in the case of the United States vs Van Vliet, the same case quoted above, on a demurrer to a valid information and a mistaken view of the law, and the defendant rearrested. In this opinion the judge sustained himself with the argument that his attention had been called to section 13, Revised Statutes, which enacts that "the repeal of any statute shall not have the effect to release or extinguish any penalty, forfeitures or liability incurred under such statute, unless the repealing act shall so expressly provide; and such statute shall be treated as still remaining in force for the purpose of sustaining any proper action or prosecution for the enforcement of such penalty, forfeiture or liability."

We may say here in carrying forward this theory of fatality, if Judge Brown had not arrived at the opinion rendered by him in December he would not have been compelled to place himself on record in March as reversing one of his own decisions of but a few weeks before. As we said in a previous article federal judges before whom collision cases are brought, are prone to adopt the popular practice of dividing damages on the theory that if both boats had not been at the point of collision, the angle of the crossing lines, there would be no collision, therefore both are contributory to the damages.

THE DOCTOR GENERAL.

Dr. William F. Thoms, who is well-known in Cleveland as the son of the distinguished navigator, and author of "Thoms' Practical Navigator," is known throughout the world as the "Doctor General." He is the commanding general of the life saving brigade of the Humane Society. The Brigade consists of three divisions, the sea division, the lake, river, and sea-shore division, and the land division. The land division includes the Nautical School, 92 Madison street, which grants certificates to navigators, enabling them to obtain situations as officers of vessels. Medals are awarded to every person saving lives. The land department saves from the dangerous elements and leads them to safety, and includes the psychological system of medicine which cures all diseases through the influence of the mind.

Captain Craig has offered the English Government the use of two fast and powerful Clydebuilt, steel steamers; also several fast wood steamers, suitable for harbor, lake or river service, should the same be required at the opening of navigation.

CHICAGO VS. DETROIT.

Much has been said by Detroit and Chicago papers regarding the relative merits and necessities of each port for the location of supervising inspectors. Heretofore the headquarters for the district has been at Detroit, and none will deny that it is proper and right that such an officer should be located there, and when we come to consider the immense territory over which he is delegated to assume supervision, all the waters of the lakes west and north of Lake Erie with their tributaries and the upper portion of the Illinois river down to and including Peoria, Ill., it will be seen that the district covers too much territory and should be divided. Let us, in the interest and for the speedy accommodation of our lake commerce, keep all we have, get all we can, and keep on getting to the end. The immense interest in tonnage at Chicago surely should be an incentive for an active effort to secure the location of a supervising inspector at that port if it will conduce to the interests of the business of the lakes, but we do not think it is wisdom to detract from the service by declaring that such an officer is not necessary at Detroit at the same time. On the appointment of a supervising inspector at Chicago, his supervision could be made to cover Lake Michigan and all tributary rivers down to and including Peoria, Ill., the interests of which are quite sufficient for one supervisor to look after in the manner that it should be done. As regards the distance from Detroit to Duluth by water and that from Chicago to Duluth the difference is but trifling, and is no argument either way. It is therefore not in good sense for a paper professing to publish in the interest of class readers to advance such nonsense, that of depriving one port of benefits for the aggrandizement of another port unless its aspirations are to become a mere local affair. It would be well if the people of Chicago, who want a supervising inspector added to their laurels, would emulate the vigorous action of the once efficient directory of the Duluth Chamber of Commerce, and acquire their need by proper action before the proper officers of the Treasury Department, that of showing why a new office should be made, and the speedy appointment of an incumbent.

OBITUARY.

The many friends of Captain S. A. Bennett formerly of the barge Lady Franklin, will be pained to learn of his sudden death of paralysis Friday, March 20th, 1885 at his home in East Evans. Captain Bennett has sailed on our lakes for many years and was a friend to every acquaintance. But though we sadly miss the cherry voice and presence of Captain Bennett we know that his many virtues,

—— in a city glorious,
A great and distant city, have bought
A mansion incorruptible.

GIBRALTAR AS A SHIPBUILDING POINT.

Special Correspondence of the Marine Record.

GIBRALTAR, March 30.

This place is pleasantly located at the mouth of the Detroit river, on the American side, and as a shipbuilding point is not inferior to any other place in the lake region. The shipyard here has a frontage of 1,800 feet and running back 300 feet. The shipbuilding era here had its commencement in 1865, under the supervision of R. W. Linn, and the first vessel launched was the schooner Jane Ralston in 1866. Mr. John Craig became a partner in the business, and the firm, in the course of succeeding years constructed the steambarge R. Prindiville, Colin Campbell, Annie L. Craig, Brunette, Ira H. Owen, Shwnee, Sandusky, Superior, W. McGregor, schooners Hartford, R. B. Hayes, steamers Alcona, Hiawatha, Escanaba, J. H. Farwell, Manistique, and barge Minnehaha. On the grounds there is a steam sawmill capable of cutting timber 66 feet in length, and also cutting out curved frames as may be required in shipbuilding. Not far distant an abundance of choice oak timber is accessible, of which the yard has constantly a sufficient supply. A few years since Mr. Craig disposed of his interests in the concern, since which Mr. Linn has assumed the entire ownership and managment of the business and the present winter has in process of construction a dock by the planting of piles from which vessels may be launched of the largest tonnage. A vessel is now building here for McLaren & Sprague, of Toledo, O., of the following dimensions: Length of keel, 165 feet; beam 31 feet; depth of hold, 11 feet, which will be completed on the opening of navigation, her construction being under the supervision of Capt. Peabody, who is to command her. The present winter sixty men were employed on the premises, and those having families have residences for their conveniences and comforts. There is also one or more stores in the village, and all the supplies requisite for residents may be had at prices more reasonable than at Detroit. For winter moorage of vessels Gibraltar has superior advantages free of cost, while repairs can be made at less cost than elsewhere. For various manufacturing purposes, besides shipbuilding, a bright future is in store for outside capitalists.

J. H.

THE PROPELLER WHEEL.

To the Editor of the Marine Record:

Dear Sir: I am sorry to see in the issue of your journal for March 19, so discouraging an account of our knowledge of the propeller wheel, and that, too, by such eminent authority as the "Mechanical Engineer."

The article must have been written from merely a cursory consideration of the question, for certainly such authority would not presume to make statements so broad, and unqualified by comment, or to give so dolorous an account of our knowledge of the screw propeller, if he had given the subject his usual patient and searching thought.

It is true that there is a large amount of error and uncertainty to say nothing of ignorance, connected with this subject. Besides, there are many factors, whose effects in this problem, it is not practicable to measure, and these may modify or partially obscure the effect of those agencies that are fully known. Yet, there are some well-known, well-established principles by which the designer of propeller wheels may be governed, notwithstanding the discouraging statements of our neighbor. To use his own unanswerable logic, "This is so well-known that I need not discuss it."

Instead of throwing so wet a blanket on the ambition of the student of marine engineering, as our friend has done, I will enumerate a few of the mistakes and positive errors that have come to my notice, as a help in reconciling some of the seeming contradictions in this matter.

First. With regard to negative slip. This idea is as firmly fixed in the mind of the average engineer as can well be imagined. The idea is that a vessel may outrun the screw that propels it. And it is amusing to see the arguments and theories brought out by professors of science to explain this mystery. This bug-bear, that to the present day baffles alike the skill of the engineer and the layman, is mooted as one of the things beyond the pale of satisfactory explanation.

For the benefit of the young student I will say that there is no such thing as negative slip. What appears to be such is the result of measuring for the pitch at an improper place on the blade.

The engineering profession have not learned yet how to measure the pitch of the modern propeller wheel, having an axial expansion of pitch, and it is only this class that show the phenomenon of negative slip.

The custom, the world over, is to take the half sum of the pitch at the forward and at the after edge of blade, and compare the motion of the vessel with this half sum as the mean pitch. Now, though this half sum is a very useful element in defining the character of the wheel, it is not at all the pitch that governs the speed of the vessel, as the following consideration will show.

The best constructed wheels, having what is called a gaining pitch, are so constructed as that the work of the face at the entering or forward edge of blade shall be zero, or such as nearly as practicable. Then, by means of curving the face of the blade, the pitch, and consequently the work done, is made to continually increase to the after edge, where it is a maximum. So that the work done by the blade may be represented by the area of a triangle, whose vertex is at the forward edge, and whose base is at the after edge of blade.

Now, it is a principle well-known in mechanics that the centre of work, represented by an area, is at the centre of gravity of that area. Also, that the centre of gravity of a triangle is at the distance of one-third the height from the base. Whence the pitch that governs the speed of the vessel must be measured at the distance of one-third the width of blade, forward of the after edge. That is to say, the distance from this point to a plane perpendicular to the shaft, and passing through the after edge of blade is the working pitch due to the one-third width of blade.

The pitch measured at this point will always be found greater than either the net pitch or the mean pitch, and with this measurement we shall never hear of "negative slip."

Second. With regard to the centre of work of a wheel blade, we are taught that it is in the circumference of a circle having the half area of the whole wheel. That is to say, if we were to find the centre of effort of a blade, we must divide its length by the square root of 2, which is 1.4142. Thus, the blade of an 8-foot wheel, or 48 inches divided by 1.4142, would show that the centre of work is about 34 inches from the centre of the wheel.

This would be rigorously correct if the wheel were at rest, and merely sustained the weight of the water on the area of its disc. But it is in motion around its centre. Its area increases as the square of the dis-

tance from the centre. Also, the resistance per unit of area of the wheel's disc varies as the square of its velocity about its centre, and the velocity increases as the distance from the centre. Whence the total effective work increases out from the centre of wheel as the fourth power of the distance from the centre. Therefore, to find the distance of the centre of work from centre of wheel we must divide the length of blade by the fourth root of 2, which is 1.1893. By this means we shall find that the centre of work of our 8-foot wheel is at about 40 inches distance from centre of wheel instead of 34 inches, as taught by our manuals.

This error results in no serious consequences, further than it has the effect to shape the blade-face, with reference to work, further in from the end than is necessary, besides, it shows incorrect thought, which it is desirable to avoid.

Third. We are taught by the manuals that the relation between the immersed cross-section of the vessel, and the disc area of the wheel governs the pitch that should be given to the wheel. The greater the disc area of the wheel, as compared with the cross-section, the smaller the work to be done per unit area of the wheel, and, therefore, the greater the pitch may, should be.

This is their reasoning, and is all very well, if things are all right up to this point. But it will be observed that no reference has been made to the power of the engine, its ability to do the work required to be done. On the contrary, this is entirely ignored. The diameter of the wheel is made to depend on the draft of water, so that the engine is loaded, not from any consideration of its power, but from the size of the wheel attached to it.

This is like fixing the road for a horse to draw, merely from a consideration of the size of the cart he is attached to, not at all by the size of the horse. Or that if a man standing in boots, say No. 8, can lift 200 lbs. if he merely steps into boots of size No. 12 he can lift 300 lbs. This is the outcome of the logic above referred to, and is the result of making the pitch to depend on the diameter of the wheel without, at the same time making the diameter to depend on capacity of the engine to do work. It is not easy to see how a person well accomplished in mathematics, a professor of mechanics and physics, should make this oversight, and so long as such errors remain in our manual so long the subject will be a mystery to new beginners.

Fourth. There is a mistaken apprehension of the law of increase of speed as compared with the increase of power applied, that creates much disappointment and vexation with some ship-owners and engineers. This law is, that the velocity varies as the cube root of the power applied; and many people suppose that this law prevails for all velocities, and this is their mistake, as the law holds only to a certain limit. All vessels have their limit of economic speed. Up to this limit the speed will increase with the power applied, agreeably to this law, or very nearly so.

Above this limit the speed falls off very fast from an agreement with this law, and soon comes to a point where no practicable amount of power will avail much in producing speed. Mr. Scott Russell, who has given this subject much thought, gives the following rule for finding this limit. Take the square root of two and two-third times the length of the run of the vessel in feet for the limit in nautical miles. This rule applies to vessels of good form, and having from six to seven times the beam for the length, and though perfectly empyrical it gives good results. Vessels having less length corresponding to beam will have a lower limit.

Thus, a vessel, say of 200 feet in length, would have her cross-section sensibly diminished at a distance of ten feet aft of her midship section, making the run, say 90 feet long. Then $2\frac{2}{3}$ times 90 is 240, and the square root of this is about $15\frac{1}{2}$; that is to say, the limit beyond which it would not be practicable to propel the vessel, is $15\frac{1}{2}$ knots, or about $17\frac{3}{4}$ miles per hour. Any of the good wheels in the market will bring the speed of a vessel up to its economic limit, provided power enough be applied. But many people know nothing of this limit, and wonder why their vessels do not go faster, when they apply more power. They will, perhaps, first blame the wheel, throw it off and put on another, but without the looked-for increase of speed. Then, perhaps, the boiler is attacked, or possibly the engineer and the fireman may call himself fortunate if he escapes an overhauling. These and many other foolish things the owner is liable to do before he comes to the conclusion that there is no more speed to be had, when he settles down to the consideration of the one rational question remaining for him to study, and that is, what kind of a wheel will do my work with the least expense of fuel.

H. C. P.

A NOVEL BUOY.

Editor of the Marine Record:

ALVINSTOE, April 1.

Dear Sir: The item regarding Capt. D. A. McLaughlan's narrow escape from drowning last week at Courtright, reminds me of another occasion in which that worthy navigator very nearly lost his life by drowning. The story will recur to the minds of some of his old companions, though I do not think it has been ever told in marine circles. The captain, who, like many more of us from the old Scotch neighborhood of Mosa, learned first to swim in the waters of Bear Creek, at McKellar's Bend, was very much bothered by his feet continually finding the bottom, the water not being more than four feet deep, conceived the brilliant idea of using hog bladders, inflated with wind, he having heard they were great aids in swimming. Now, what does he do but one day strip off with the rest of the boys, and with a bladder securely fastened to each ankle, boldly jumps in. Well, if Bear Creek was never buoyed before it was then, for the captain's two poles stuck up in elegant, good shape, and had not a few of us bore a hand there to pull him out, the Detroit & Cleveland Steam Navigation Company, would never have had the services of my old friend, Duncan, laddie. Yours, etc.,

A SUBSCRIBER.

[*Continued from 1st Page.*]

GRAND HAVEN.

The Wisconsin's sides are considerably warped and twisted. She also has several frames broken, and when repairs will be made has not yet been decided. More than one-half of her cargo, or between $25,000 and $30,000 in value, was jettisoned when she was nipped.

The tug Arctic, under command of Chas. Lyman, which went out to assist the Michigan, March 16, came into the harbor Friday morning. She has had an exciting time battling the ice. She wears the honor of having been the preserver of the Michigan's shipwrecked crew. When the Arctic left here she carried a good stock of provisions for herself, spplies for the Michigan and an order not to return without the propeller. She got within a mile of the Michigan and there also became fast in the ice, having to forward the provisions over the ice. When the propeller became free on Tuesday, the Arctic also was freed and could have run back to port, but the Michigan signalling distress she waited to render assistance if necessary. When the final squeeze came the Arctic was lifted bodily out of the water and it took her crew, aided by the survivors from the ill-fated propeller (some twenty men,) three days to work her back into the water. This trial injured both her rudder and tiller. She was unable to get free till Thursday afternoon, when she started for this port. While the crew were on pretty short rations for a time, they did not really suffer for necessaries. They had plenty of provisions when they left, but having to care for the crew of the Michigan for a few days reduced the supply very materially. On Monday three of her crew came in for provisions, and although the ice was considered shaky, Geo. Walker, Geo. Sheldon and Captain Jenson fitted runners to a small boat and taking the necessary supplies reached the tug is safety Wednesday.

TOLEDO.

Special to the Marine Record.

The ice in the Maumee river broke up Wednesday and Thursday of last week and passed out of the harbor very quietly Friday night, doing no damage. There is clear water to Turtle Islands and Bay Point.

The steambarge Mills which has been fast in the ice in the Maumee Bay since last December arrived up Sunday, and will go on to Gilmour's drydock for repairs.

Schooner Wm. Shupe loaded 16,000 bushels of wheat here Saturday for Ogdensburg $5\frac{1}{2}$ freight; this is the first grain charter that has been made.

The schooner R. Hallaran will load with wheat for Buffalo the latter part of this week on owners account.

The tug May French is on Bose's drydock receiving an overhauling.

The dredge Buckeye State is to work at foot of Jefferson.

The tug Syracuse of the T. H. T. Line, is the first tug boat out and is transferring vessels and propellers around from their winter quarters.

The barge Danube sailed up from Gilmour's drydock Friday afternoon. This is the first sail seen on the river this season.

The steam yacht Sallie, while going into the old shipyard docks, run onto some old poles and punched a hole in her bows. Damage light.

The Wabash Line of steamers Russel Sage, John C. Gault and A. L. Hopkins have been towed out from their winter quarters to the Wabash dock, where they are to paint and fix up for the coming season.

J.

PORT HURON.

Special to the Marine Record.

Wm. L. Blanc, the boat builder, has built during the winter several new ship's yawl boats ready for the coming season.

Messrs. Love & Schofield, boiler makers, have just completed a marine boiler, 8x15, of Otis steel half an inch thick, for the J. W. Westcott, owned by R. Holland, Marine city. They are building a marine boiler 8 feet 6 inches by 16 feet, of Otis steel 9 1-16 of an inch thick, for J. E and W. F. Botsford's propeller, Roanoke, which will be placed in her on her arrival here from Chicago. This is a very fine boiler and well worth inspecting. The firm also built a boiler 9x16, of Otis steel, 9 1-16 thick for the steam barge Tempest.

The tug River Queen will have new rail, stanchions, covering board, fender strake, and a general overhaul to the amount of about $800. Captain Tom Currie will be on deck during the coming season and will be pleased to see his old friends sailing close to the river.

Messrs. J. E. and W. F. Botsford have rebuilt their marine elevator and increased its capacity, so that they will elevate some 5,000 bushels of grain per hour instead of 3,000 bushels as heretofore. They have also added a new steel boiler, 6x16, which will give more power to their engine.

David Robeson, ship-chandler and sail-maker, will fit out the new three-mast schooner, built here by Dunford & Alverson. Her sails will be of the best No, 1 canvas. She will have wire standing rigging, and steel wire running rigging. The whole outfit will be the best and most complete that can be procured. D. Robeson is keeping a number of men busy in his sail loft, making sails for various other vessels in this and neighboring ports.

Last Saturday Captain James Moffatt's steamer Omar D. Conger broke the ice in Black river as far as Military street bridge to enable his ferry steamers to run from there to Sarnia. His ferry steamers, Grace Dormer and J. L. Beckwith, have been running for some time between this port and Sarnia, and landing passengers and freight at the dock, foot of Butler street. Captain J. Moffatt's steam ferry boat, James Beard, has received a new boiler of more size and strength than her former one.

At the Drydock Iron Works, Jas. H. Fitzgerald has been and is giving the usual fit-outs to the following propellers: Burkhead City of New Baltimore, Ogemaw, C. H. Green, Mary, Oscoda, Clara, Ira Chaffee. Tugs, Frank Moffat and Mocking Bird. The engine and machinery of the steam barge, S. D. Caldwell, has been taken out and is undergoing considerable overhauling prior to the placing of it in the J. W. Westcott, of Marine city.

Dunford & Alverson, ship builders, will soon launch a very handsome schooner, 202 feet long over all, 35 feet 6 inches beam, 14 feet depth of hold. She will carry about 55,000 bushels and is A1 in every respect. She is framed out of six-inch flitch and the frames are 21 inches from center to center. Her main keelson is 14x14, two assistant keelsons 14x14, two rider keelsons 14x14 Bilge strakes, two of 8 inches, four of 7 inches, two of 6 inches, from bilge up 5 inches, three strakes of clamps, 6 inches, shelf piece three strakes, 6 inches. Two garboard strakes, 6 inches, one 5 inches, and planked to rail with four-inch plank. She will have 6 hatchways 8x14, her bowsprit will be 23x24 in the knightheads and 43 feet long. Her fore and main masts will be 93 feet long, 26 inches in partners, mizzen mast 82 feet long, 20 inches in partners, fore boom 58 feet long, 16 inches in slings, main boom 61 feet long, 16 inches in slings, mizzen boom 42 feet long, 12 inches in slings. Her very fine cabin is fitted with all modern requirements, and her outfit will be of the very best. She is owned by her builders, who will run her until a purchaser is found who will give them the price they ask for her.

The Wolverine Drydock Company are rebuilding the schooner Hattie Wells. She was sawed in two and lengthened 30 feet amidships and spread out 25 inches. She has received new cants forward and aft, main keelson 20x24 inches, four sister keelsons 10x18 inches each, and rider keelson 12x14 inches, entire new ceiling, bilge keelsons, apron, inside stern post, new deck frames and deck. The deck plank has been under cover since November, 1882, and was laid and calked without a drop of rain. All new hanging knees, stanchions, plank sheer and rail knight heads, parol posts and a new cabin on deck, new bow sprit and all new top masts, and fastened in the most substantial manner possible. She will go out of dock about the 10th of April. Her length is now $176\frac{1}{2}$ feet over all, beam 28 feet, depth of hold 11 feet, and her carrying capacity will be about 30,000 bushels. She will next season tow with the propeller Roanoke, recently purchased by J. E. and W. F. Botsford, of this port, and will trade between Tawas and Chicago with salt, and back to Port Huron with grain. The schooner will have a very handsome appearance when completed, and Captain D. H. McAllister may well be proud of his better than new vessel.

T. W.

KINGSTON.

Breck & Booth have chartered the F. J. King to bring two loads timber from Toledo to Garden Island.

Four new spars for Gaskin's barges are at Sharbot lake awaiting shipment to Kingston. They were prepared by Messrs. Burke & Erwin, of Oswego.

EAST SAGINAW.

Special to the Marine Record

Since my last letter we have had a warm spell indeed. The snow has all disappeared and the river has gradually come up until now (Tuesday noon) it has reached five feet six inches above low water mark. Sunday the tug Anna got up steam and had no trouble in breaking her way to the coal dock, a quarter of a mile distant. The fire tug David Sutton will commence making regular trips from this city to Carrollton this morning and the river line of boats will probably be running to Bay City before my next. Captain Sharpston, who has been fishing on Saginaw bay this winter, was in the city yesterday and states that the fishermen are now making "big catches" and that the ice will average eighteen to twenty inches between Bay City Light and the Charity Islands.

It is the general opinion here that the smaller class of boats and crafts of no rating will stand a poor show for Ohio lumber on the opening of navigation, as it will be some time before Buffalo cargoes can be delivered, and most of this class of boats will make one trip to Ohio before loading for Buffalo and Tonawanda.

Captain John Kelly, master and owner of the schooner Goshawk is in the city, and states that his craft has been thoroughly rebuilt at Milwaukee this winter, and is now loaded with wheat at 8c for Buffalo. Captain Kelly figures on getting through the Straits about the 10th of May.

W. F. Cody, of this city, who is to be second engineer on the new tug recently built by the Globe Iron Works of Cleveland, has made arrangements for his captain to tow the barges Fostoria, B. M. Baker and Matilda the coming season. They will run to Ohio ports and in the stone trade.

Captain E. W. Haskins has purchased a one-fourth interest in the barge Charles L. Davis, and will command her the present season. About $1,000 repairs have been made on this craft during the winter and she now presents a better appearance than ever.

The tug Robert Boyd has had $500 repairs made to her boiler this winter at Steele's Boiler Works, and will be commanded by Captain Frank Pierce and Engineer John Wyckoff.

The Saginaw and Bay City line of steamers, Wellington R. Burt and G. Mason, owned by Messrs. Root and Miller of this city, have been thoroughly overhauled this winter, the steamer Burt having received a new cabin deck and guards, while the steamer Mason that was rebuilt last winter, has had extensive repairs made to her machinery. The hulls have been painted green with white upper works and old gold trimmings which makes a very creditable appearance. The steamer Burt will be commanded by Captain Robert Medler, Clerk M. Mohor, Engineer Jenkins, and the Mason by Captain John Rogers, Engineer Joseph Nichols, Clerk John Brown. A trip to Bay City and return was made on the 28th of March, last year by the Burt.

The steam yacht Laura M. has been sold by Harry Shaw to Charles Vahle of Sebewaing. It is the intention to use the Laura M. in connection with Heisterman Island, the popular summer resort this season.

The P. line of barges will be officered this season, as follows: Barge Commodore, Captain John Wright; barge W. L. Peck, Captain Blyben; Matilda, Captain C. W. Crebbes; B. M. Baker, Captain John M. Price; tug Standard, Captain Jas. Molles. The Commodore and Peck, in tow of the tug Quail, will ply in the Ontonagon trade.

H. SHAW.

A CHICAGO weekly paper of last week, makes considerable breeze over a misstatement it printed a previous week, leading one to infer that some other paper had been guilty, regarding the Green Bay and Buffalo line of steamers, saying "the facts are now printed for the first time" and gives itself much credit for having discovered a *new* item of news, but which was printed in the MARINE RECORD February 19, page 1, and the boats named March 12, on page 4. Hence it will be seen that the news was old before the bright little paper was born, as was also most of the other news it has published, as its readers remember having seen most of it in the MARINE RECORD last year.

LITTLE KANAWHA RIVER IMPROVEMENT, LOCK NO. 5.

SEALED PROPOSALS in duplicate will be received at this office until noon (local time), on Thursday, April 19, 1885, for furnishing the boilers and machinery, necessary for constructing Lock No. 5. on the Little Kanawha, River, West Virginia.

BOILERS AND MACHINERY REQUIRED.

2 Double-flue Boilers complete.
3 Steam Engines, complete.
2 Centrifugal pumps.

Specifications, printed forms of proposals and information will be furnished on application to the undersigned.

JAMES C. POST,
CAPTAIN OF ENGINEERS, U. S. A.

U. S. Engineer Office, Custom House and Post Office Building, Cincinnati, O.
March 19, 1885.

IMPROVEMENT OF THE LITTLE KANAWHA RIVER, W. VA.

PROPOSAL FOR CEMENT.

SEALED PROPOSALS in triplicate will be received at this office until 12 o'clock, noon, (local time), on Thursday, April 9, 1885, for delivering on barges at Parkersburg, W. Va., of the Cement required for use in the construction of a lock in the Little Kanawha River, near Burning Springs, West Virginia.

Approximate quantity required, 3,000 barrels.

Specifications and all necessary information may be obtained on application to the undersigned.

JAMES C. POST,
CAPTAIN OF ENGINEERS, U. S. A.

U. S. Engineer Office, Custom House and Post Office Building, Cincinnati, Ohio.
March 19, 1885.

HISTORY OF LAKE NAVIGATION.

CHAPTER XI.

References lately made to the history of the battle of Lake Erie, or, to be more exact to incidents in connection with the preparations for that memorable struggle, though at this fast-going day of monster undertakings the "great victory" of Commodore Perry with nine sailing vessels, only two of which were above 100 tons capacity, shrinks to small proportions. There are now several schooner barges on the lakes which would consider the average of Perry's fleet as hardly bigger than yawl boats. Yet undertakings are of account according to what they accomplish. A random shot that came near not being made laid low one of the best generals of the continental army as he was leading his victorous troops up Quebec height one stormy New-Year's morning, and held Canada a British province, while the other colonies escaped to carve out a history of their own. So the gallant young commander of this fleet of cockle shells, hastily fitted out and poorly equipped even for those days, and himself but a novice in handling a fleet, was enabled to drive the veteran British from Lake Erie, and by this daring feat to contribute largely to the victory of McDonough a year latter on Lake Champlain, which completely established the American supremacy of the Great Lakes.

The battle of Lake Erie, however, need not be retold here. That glorious 10th of September, in the year 1813, belongs locally to Sandusky and Put-in-Bay. The contribution which Buffalo made to the enterprise was the fitting out of several vessels of Perry's fleet in Scajaquada creek, a short distance above its mouth. The little flotilla was composed of five vessels—a brig, three schooners, and a sloop—one, the former having been captured from the British at Fort Erie. So threatening was the position of the British just across the river that an earthwork was thrown up to protect the operations on the Scajaquada. The ridge that remains of this hastily constructed defense can now be plainly seen near Hall's fire brick works, just above Niagara street, at the Scajaquada bridge.

The capture of the brig Caledonia was a daring deed, the result of a well planned night expedition which was fitted out in Buffalo creek by Lieut Elliott of the navy, then stationed at Black Rock. It consisted of several, well manned boats, which were so ably handled that they managed to completely surprise the British and capture not not only the Caledonia, but her consort, the Adams, both of which lay under the guns of Fort Erie. The Adams, however, ran aground a short distanse out from the fort, where she was so completely riddled by British shot she soon filled with water. She was afterwards set on fire and destroyed where she lay. But the Caledonia was brought safely into the Scajaquada, and on this flotilla setting out to join the larger vessels at Erie was made the flag-ship for the time. This was in 1812. The other four vessels in the Scajaquada were the schooner Somers, Ohio, and Amelia, and the sloop Trippe. All took part in the battle but the Amelia, which on arriving at Erie, was condemed and sunk. The Ohio, also, was only indirectly engaged in the affair. The vessels had been bought by individual owners and had been cut down, given solid bulwarks, and otherwise fitted for purposes of war. The work had been done under the direction of Henry Eckford, who bore the title of naval constructor.

For a time the vessels were hopelessly penned in their yard near the mouth of the Scajaquada, the British occupancy of Fort Erie being a constant menace to their very existence. Until the enemy could be driven away, any attempt to release them was quite out of the question. But on the fall of Fort George on the 27th of May, 1813, the British began to evacuate the Niagara frontier, and the American flotilla was soon free from immediate molestation. It appears that there was some difference of opinion as to the point most favorable for collecting the vessels which were to contend for the mastery of Lake Erie. Lieut. Elliott favored Squaw Island, at the present International bridge. His choice met the opposition of Mr. Daniel Dobbins, who, though he commanded the Ohio during the battle, was given no other title than that of sailing master. The Ohio was, however, used as a supply ship, and was at Erie during the battle.

Sailing master Dobbins, father of Captain D. P. Dobbins of Buffalo, was a prominent character in this critical portion of our history. He was well acquainted with the lakes, having been at Mackinaw in command of the merchant schooner Salina, of which he was part owner, when that post was surrendered to the British. After the surrender the Salina was used to convey the prisoners and non-combatants to Cleveland. On arriving at Detroit the vessel was taken by Gen. Hull, but on the surrender of that post she again fell into British hands. Captain Dobbins, then set out with a party for Cleveland, using only small boats in which to make the passage. The object of the voyage was to transport some paroled prisoners to that town. On arriving there Captain Dobbins set out for his home at Erie in a small sloop. There he remained some time with his family, and then was sent to Washington by Gen. David Mead, then in command at Erie, to give information of the loss of Mackinaw and Detroit. Captain Dobbins did not favor the selection of Black Rock as headquarters of the fleet on Lake Erie. While at Washington he strongly recommended Erie and his recommendation was accepted. He was thereupon offered a sailing master's position in the navy and on his acceptance was ordered back to Erie to begin the constrution of gunboats for the proposed fleet. The surrender of Mackinaw was in July, 1812, and in October Captain Dobbins began work on his gunboats, himself cutting the first timber to be placed in them. It must be remembered that there were then no mills for sawing lumber, only the standing trees for material, a condition of things that would appall a modern ship-builder.

The vessels were built on Cascade creek, about a mile above Erie, where the depth of water was greater than at the village. The place is now known as Reed's Dock. On the 10th of March, 1813, Noah Brown, master ship builder, arrived from New York with a gang of twenty-five carpenters, to urge the work forward more rapidly. He found the gun boats ready for calking, and the keels of the two "sloops-of-war," the future flag ship Lawrence and her exact counterpart, the Niagara, ready to lay. On the 27th of March Commodore Perry arrived at Black Rock and assumed command, and Captain Dobbins was soon after given the task of transporting guns and munitions from Black Rock, to equip the vessels building at Erie.

In the meantime the little flotilla in the Scajaquada was being prepared for the coming engagement under the eye of Master Builder Eckford. The vessels were ready to join the others on the 6th of June. The guns had been taken from the batteries and mounted on the vessels, and the stores were put on board. To get them up the Niagara rapids into the lake was the work of a week. They had to be towed or "tracked," as it was called, by ox teams and sailors. These, with the aid of 200 soldiers, toiled patiently along the river bank day after day until all were safe on the lake. The Caledonia was commanded by Perry, who at once made out a code of signals, for the British had lately been between him and Erie, and all caution was necessary. The flotilla arrived safely at Erie on June 19th. Here they found the gunboats substantially finished, though the "sloops-of-war," the Niagara and Lawrence, on which were to depend the result of the battle, were not launched until the end of the month.

In order to get an adequate idea of the work undertaken in building and fitting out this fleet, a glance at the condition of this wild west is necessary. All the guns and a great part of the supplies had to be brought from New York and Philadelphia. The ship carpenters also came mostly from New York. Among the number was John Richards, father of the wife of Captain Dobbins of Buffalo. "From New York passage was taken up the Hudson by sail. Up the Mohawk the journey was continued in keel boats propelled by poles. At a point near Oneida lake the boats and munitions were carried across a portage and again launched in the lake. The route was now across Oneida lake and down the Oswego, Lake Ontario being reached by shooting Oswego Falls. Then by hugging the south shore of Lake Ontario the boats came to the mouth of the Niagara river, up which they passed to Lewiston. Here a long and tedious portage was necessary, for the Niagara was not navigable until a point above the Falls known as Sholosser was reached. This was some distance above Port Day, now the lowest landing above the Falls on the American side. At Schlosser there were docks and warehouses, and boats carrying various commodities then passing between the seaboard and the upper lake plied between this point and lake Erie."

It had been the hope of Perry to get his fleet ready for the battle before the British could launch the Detroit, a vessel of whose great size he stood much in awe, but the supplies were not ready and the Detroit went into the battle. Perry's nine vessels, the Lawrence, Niagara, Caledonia, Scorpion, Ariel, Somers, Porcupine, Tigress, and Trippe, with fifty-four guns and 490 men, were confronted by Captain Barclay's fleet of six vessels, the Detroit, Queen Charlotte, Lady Prevost, Hunter, Chippeway, and Little Belt, with sixty-three guns and 502 men. The result is well known, and the details need not be given here.

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Capt. Sidney Griffen will leave on Monday for New York. He takes command of the steam yacht Calumet, owned by Mr. Charles G. Emery, of Brooklyn. She will be launched and got ready, and will come to the St. Lawrence as soon as the canal opens. Mr. Emery took her to Brooklyn last fall to give her a general overhauling and fit her up in good style. He owns a beautiful island opposite Clayton, on which he and his family reside during the summer months, and the Calumet is kept busy during the pleasure season.

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